# ASPHALT BLOCK INDUSTRIAL FLOORS

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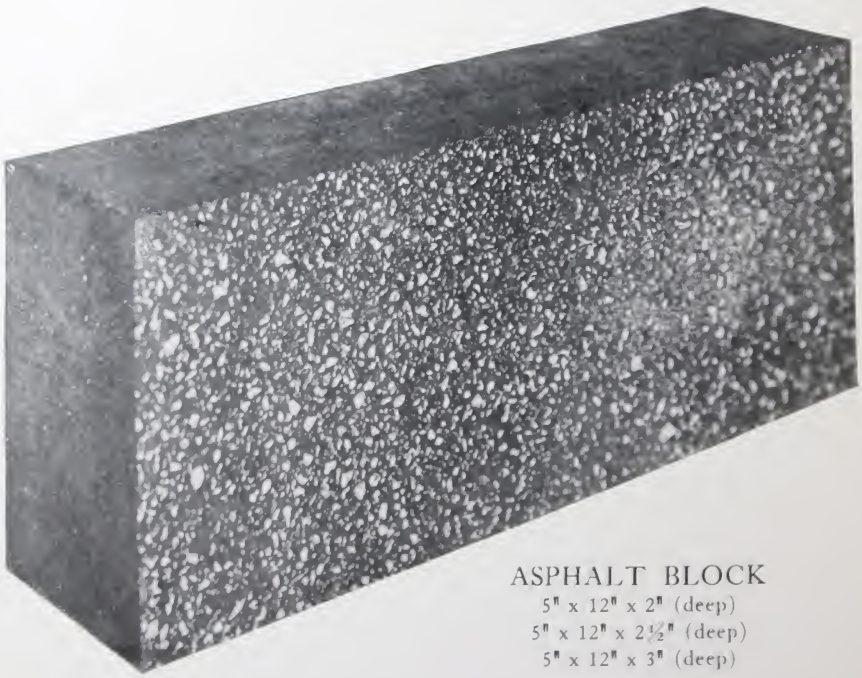
THE HASTINGS PAVEMENT COMPANY
*Executive Offices:* 25 BROAD STREET, NEW YORK, N. Y.
*Plant:* HASTINGS-ON-HUDSON, NEW YORK

## EIGHTFOUR

8" x 4" x 1¼" (deep)
Weight 15 lbs. per Sq. Ft.



## ASPHALT BLOCK

5" x 12" x 2" (deep)
5" x 12" x 2½" (deep)
5" x 12" x 3" (deep)

The following article is reproduced by the courtesy of the author, from the "*Navy Bulletin.*"

# AN IMPROVED FLOOR MATERIAL FOR SHOPS AND WAREHOUSES

## *The Compressed Asphalt Block*

WAREHOUSE floors for heavy traffic conditions in miscellaneous storehouses, bonded warehouses, etc., are sometimes a source of anxiety to the designer. The problem in such buildings is that the floor must not only resist the wear and tear due to ceaseless traffic, but, owing to the nature of the contents, must be of such construction that it shall not collect or retain dust, packing refuse, or sweepings. It must permit of periodical cleansing with a stream of water, if necessary; be easily swept perfectly clean; must give off no dust under traffic; must be odorless; oil, acid, and alkali proof; comfortable to work on; warm and sanitary; and, above all, susceptible of local repair at a nominal figure, without special tools or apparatus.

Ordinary wood flooring is not sanitary. It collects dust, throws off splinters, and at the best must be constantly filled, painted, or otherwise protected at a high maintenance cost. Wood block set on end, while free from some of the above objections, must be jointed with grout or pitch and saturated with creosote oil, which is necessary as a preservative, but far from odorless. The grouting material is more or less affected by the creosote, and the result is bleeding, which is not a desirable condition.

The bitumastic floor would seem at first glance to meet many of these conditions, but if made hard enough to withstand the traffic, is not comfortable to stand on, requires heat and special tools for its repair, and is more or less liable to flow and distortion under pressure.

The plain concrete floor, even when faced with granolithic, has the disadvantages of dusting, of pitting under traffic, and of dirt and dampness when repairs are required.

For these reasons none of the above types are entirely satisfactory. The remaining choice, therefore, is the inorganic block of molded elastic material. The use of such blocks was first attempted in large surfaces at the Centennial Exposition at Philadelphia in 1876. A considerable portion of the roads and

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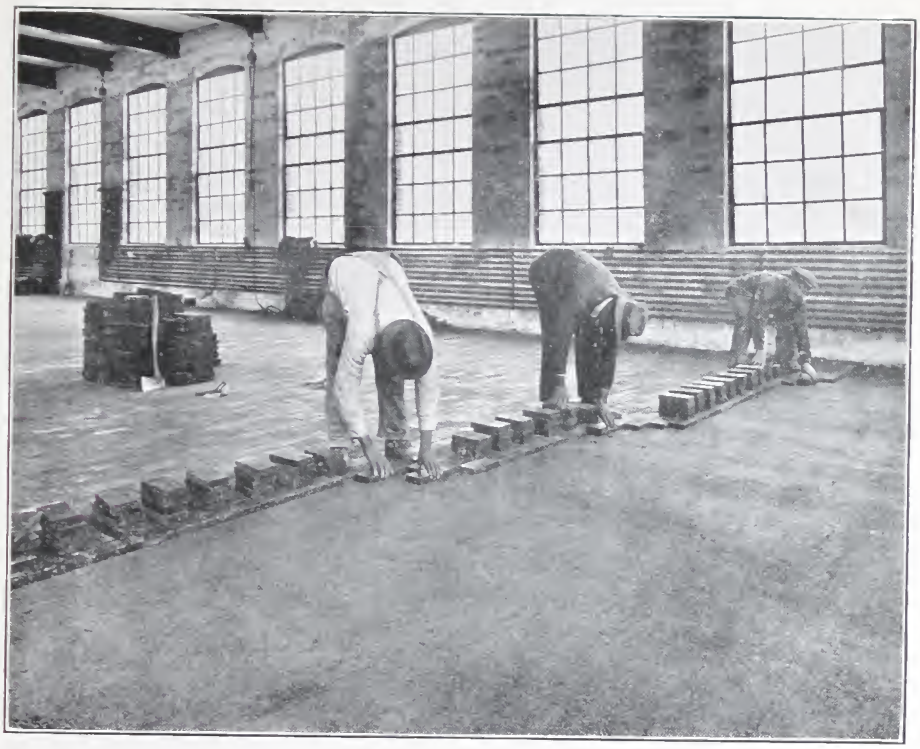
LAYING ASPHALT BLOCK.
*Engineers: Westinghouse, Church, Kerr & Co.*

walkways around George's Hill, Memorial and Horticultural Halls in Fairmount Park are still in existence as a proof that the material is valuable as a pavement. These walks and traffic ways have been exposed to the weather for more than 40 years, and while suffering now from neglect, are still serviceable and doing duty.

The blocks in use at that time were usually hexagonal and, being made under very moderate pressure, not extremely dense. For this reason, weathering and traffic resulted in a rounding of the edges of the block, which gradually developed some irregularity of the general surface. The variation in density and the use of an aggregate not always suitable also had the effect of making the blocks variable in resistance to wear.

There is no doubt of the correctness of the premises on which the use of this material was developed. The old objections have been overcome. Blocks are now available with a scientifically selected and graded aggregate, and formed under such pressures (4 tons per square inch) as to be practically homogeneous. All blocks are of equal density and uniform in dimensions. In spite of their enormous density they are, curiously enough, very resilient. Add to this the fact that they furnish a pavement, which is, all things considered,



WACLARK WIRE COMPANY, BAYWAY, N. J.
LAYING "EIGHTFOUR."
*Engineers: Almion Engineering Company*

cheaper, more sanitary, and easier to repair than the others mentioned, and adapted to use inside or outside a building without any difference in treatment, and it will be at once recognized that the major requirements of an ideal pavement are met in this material.

These qualities were the basis of an investigation made by the civil engineering force at the New York Navy Yard, and opportunity was afforded through the courtesy of the Hastings Pavement Co., of New York, for the examination of existing installations. Many of the walks in Prospect Park, Brooklyn, were examined, and also the use of these blocks on streets of considerable grade, where sheet asphalt would have constituted a menace to wheeled traffic during winter weather.

After further inspection of a number of municipal and private piers on the Brooklyn waterfront, and of several industrial establishments where the demand was extremely severe, the boiler-shop in the Brooklyn yard was paved with these blocks. Inquiry and examination from time to time proved that this floor was extremely satisfactory, both to the officials and to the men who worked on it. This is an extremely important point, and when the

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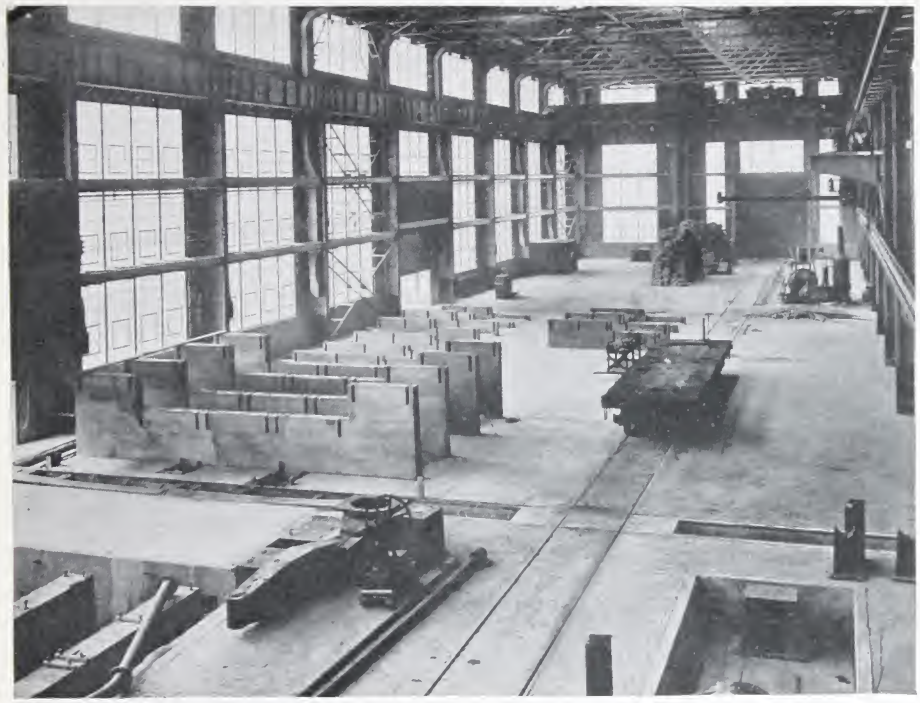
similar opinions of the employees of other industrial plants examined are added to it, constitutes a strong argument in favor of this type of floor for such purposes.

The above considerations, added to the material difference in favor of the asphalt block over other types of floor in the initial cost, plus the ease and almost negligible expense of maintenance, led to the selection of this material for the shipping and receiving floor of the new general storehouse for the Navy at the Brooklyn yard. In this case about 8,000 square yards are involved, as the building is 360 by 180 feet, and a shipping platform 12 feet wide extends entirely around it. The block is laid continuously through the first floor of the building and across the shipping platform, no break being made at doorways. The platform is slightly graded away from the building for the discharge of storm water.

The floor itself is composed of a 6-inch slab of unreinforced concrete, laid directly on the tamped and puddled fill. On this a bed of 1:3 mortar one-half inch thick is laid and struck off with a screed. The wearing surface of compressed asphalt blocks is laid directly on the mortar bed without jointing material of any kind and leveled by light rolling, after which sand is spread



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over the blocks. This sand is removed before the floor is put in active operation. The blocks under traffic have the peculiar property of welding or joining so as to present a close, smooth, sanitary surface capable of carrying traffic of any weight, yet easily raised for repairs should the same become necessary, the same blocks being relaid when the concrete bed has been restored to grade.

The blocks are 5 by 12 inches in surface dimensions and 2 inches thick. When their use for this purpose was investigated, an examination was made at several plants. In all cases the floors showed no appreciable wear, although under extremely severe conditions of service for long periods of time.

The advantages which the Government's designers expect to attain in this floor are several, and all of the first importance. In the first place the resultant floor is fire, water, acid, alkali and oil proof. It is dense and at the same time elastic. It is remarkably easy to repair. It requires no jointing material like brick or wood block, and does not need to be creosoted. It does not require as much surfacing material as either wood block or vitrified brick, and will not wear or dust—an important point in a storehouse where heavy and continuous traffic occurs. It permits of ready repair, requiring no special

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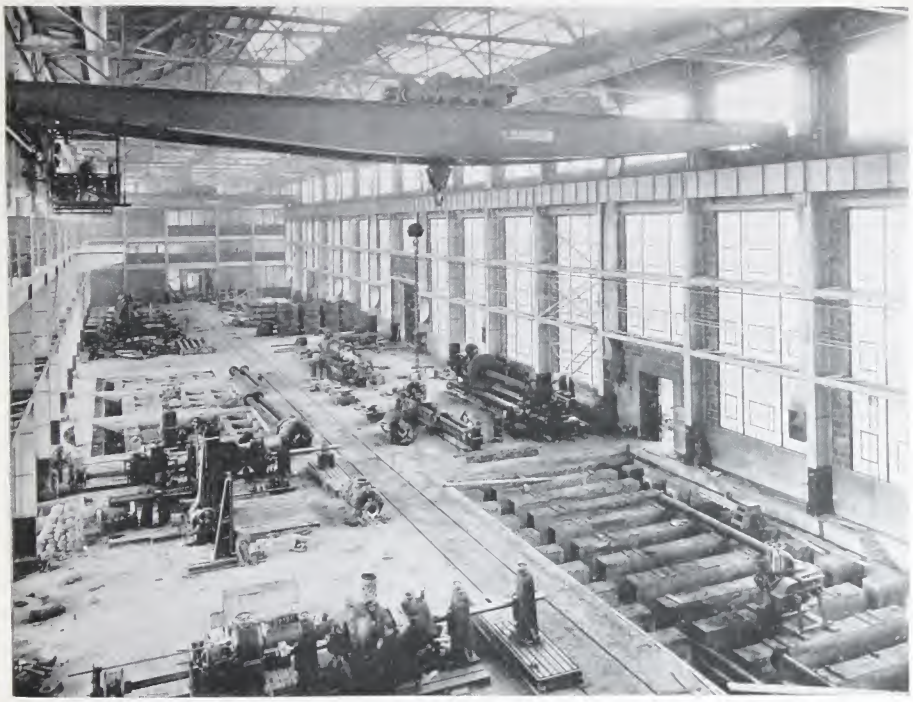
tools or trained labor. It is cheaper than brick or wood block, and where it passes from indoors to out requires no treatment for weather exposure.

It is the sincere belief of the writer that many of the disadvantages of pavements for this purpose have been overcome by this selection, and that the results arising from its use will be gratifying to a high degree.

H. S. RINKER,
Expert Aide
Bureau of Yards and Docks

An increasingly large number of industrial plants have found a solution of their flooring problems in the Asphalt Block, manufactured by The Hastings Pavement Company for the past thirty-five years. The installation of industrial floors now forms a very considerable fraction of our business. The reason for this may be found in the uniform satisfaction given by the Asphalt Block under the many varying and trying conditions of industrial work.

The Asphalt Block is entirely free from expansion problems. No expansion



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ASPHALT BLOCK FLOOR.

joints are necessary. It is waterproof, and therefore may be easily cleaned by a stream of water. It is of such density that iron or steel particles may be swept from the surface, even after the passage of loads heavy enough to force such particles into other types of flooring, while at the same time it is malleable and easy under foot.

The Asphalt Block is free from odors and exudations; a most important point in the consideration of floors which are used for the storage of food-stuffs or other spoilable commodities. This quality makes the Asphalt Block by far the most economical flooring for use on structures devoted to the above purposes, for it saves dunnage bills. Standing loads do not affect it.

It is altogether fireproof, and presents a smooth, even-wearing, extremely durable surface. Some of our shop floors have been laid for years, without any maintenance expense whatever.

These are the reasons our Industrial work has been constantly growing in volume. They may be summed up in the *absolute dependability* of the Asphalt Block under any and all circumstances. *Asphalt Block gives the service.*

WACLARK WIRE COMPANY, BAYWAY, N. J.
"EIGHTFOUR" FLOOR.

## THE EIGHTFOUR

The universal satisfaction given by the Asphalt Block under industrial usage, has led to many demands for an Asphalt Block that would fit those conditions in which weight and thickness of flooring must be at a minimum, while quality must be maintained.

To meet this demand we are manufacturing our "Eightfour," identical in every respect save that of size with the Asphalt Block now giving such excellent service, under such a wide variety of traffic conditions.

The "Eightfour" is used on ground floors where head-room is limited and on upper floors, designed to carry a certain maximum dead load. A reference to the cut on page 2 gives dimensions and weights of the "Eightfours." They are worthy, sturdy small brothers to the Asphalt Block.

# Some Representative Users of Asphalt Blocks

*Manufacturing Plants, etc.*

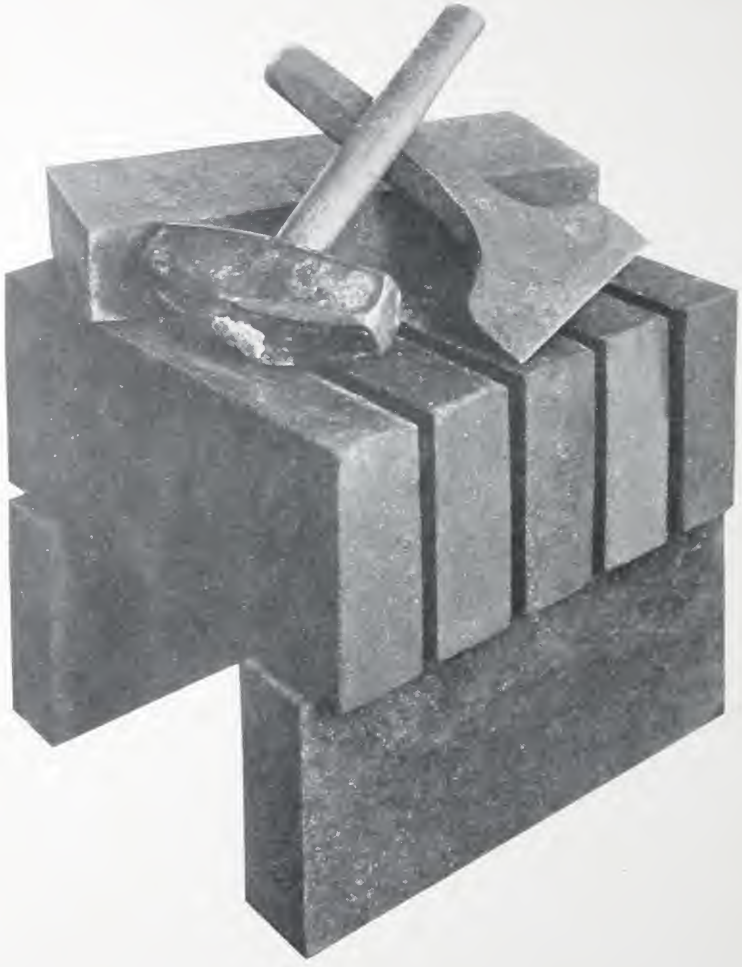
Carnegie Steel Co., Braddock, Pa.
Clemson Bros., Middletown, N. Y.
Delaware, Lackawanna & Western Railroad, Orange, N. J.
Duplan Silk Co., Hazelton, Pa.
Edison Electric Power Plant, New York, N. Y.
H. K. Porter Locomotive Co., Pittsburgh, Pa.
Heppenstall Forge & Knife Co., Pittsburgh, Pa.
J. G. Brill Car Co., Philadelphia, Pa.
Nathan Manufacturing Co., Flushing, L. I., N. Y.
New York, New Haven & Hartford Railroad, New Haven, Conn.
Otis Elevator Co., Harrison, N. J.
Quintard Iron Works, New York, N. Y.
Remington Arms Co., Bridgeport, Conn.
Shaefer Brewing Co., New York, N. Y.
Shultz Bread Co., New York, N. Y.
Spang Chalfant Co., Sharpsburg, Pa.
Standard Plate Glass Co., Butler, Pa.
Studebaker Corporation, South Bend, Ind.
The American Tobacco Co., Brooklyn, N. Y.
The Bridgeport Brass Co., Bridgeport, Conn.
The Celluloid Co., Newark, N. J.
The General Electric Co., Pittsfield, Mass.
The J. M. Skinner Bending Co., Toledo, Ohio.
The Smith Gas Power Co., Lexington, Ohio.
The South Chester Tube Co., Chester, Pa.
The Standard Steel Works Co., Burnham, Pa.
United States Navy Yard, Brooklyn, N. Y.
Waclark Wire Co., Bayway, N. J.
Westinghouse Electric Mfg. Co., East Pittsburgh, Pa.
Wilson Snyder Mfg. Co., Pittsburgh, Pa.

*Piers*

Bush Terminal Pier No. 6, Brooklyn, N. Y.
Grace & Co., Brooklyn, N. Y.
Lamport & Holt Steamship Line, Hoboken, N. J.
New York Dock Co., Piers Nos. 17, 18, 26 and 36, Brooklyn, N. Y.
Ocean Steamship Co. Terminal, Savannah, Ga.
Pennsylvania Railroad, Greenville, N. J.

*Stable Floors*

Adams Express Co., New York, N. Y.
Hecker-Jones-Jewell Milling Co., New York, N. Y.



THE MUNRO & HARFORD CO., N. Y.